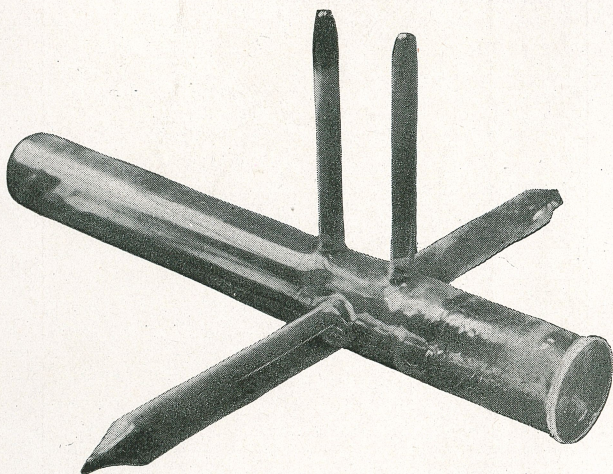


QUARTZ-GLASS APPARATUS

for

PHOTOPHYSICS *and*
PHOTOCHEMISTRY



1 $\frac{3}{4}$ in. diam. clear polished plate fused to quartz-glass cylinder and
joined to pyrex tube.

COOPER HEWITT ELECTRIC Co.
HOBOKEN, NEW JERSEY

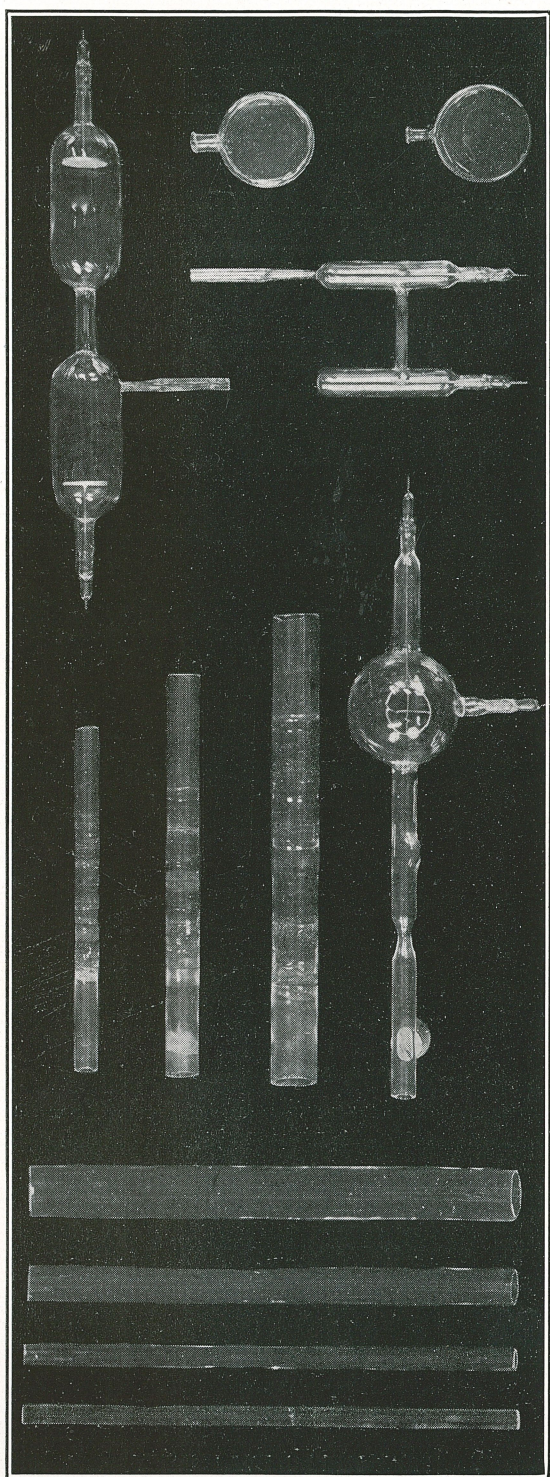


Fig. 1.

QUARTZ-GLASS APPARATUS

for

Photophysics *and*
Photochemistry

BY way of service to those doing photochemical and photophysical work a great variety of quartz-glass apparatus is made on order.

The fused-quartz used for this purpose is produced from the best quality of Brazil rock crystal. Its purity and freedom from bubbles insures a minimum dispersion and a maximum transmission of the far or higher frequency ultra-violet. This is a much higher grade of quartz than is ordinarily used or required for chemical work where only the heat resisting properties are important.

A few standardized designs are shown in Fig. 1 to a scale of about 3 in. to 8 in. Quartz-glass tubing is made in sizes ranging from capillary to 1½ in. bore and larger. The ends may be closed at a slight additional expense to form test tubes. Graded fused-quartz-to-Pyrex, and fused-quartz-to-lead-glass joints are made from capillary to 1½ in. bore. These joints are entirely unique in their properties and are invaluable for certain types of physical laboratory work. Photo-electric cell frames are regularly made to the specifications of Kunz and Stebbins while special designs can be made from dimensioned sketches. Various kinds of spectrum tube frames are made of which two are shown. Homogeneous absorption cells are made with approximately parallel plane polished sides.

The cut on the first page shows one of many combinations of grade joints, quartz-glass tubing, and fused-on polished quartz-glass platés.

Practically any kind of glass laboratory apparatus of moderate dimensions can be duplicated in quartz and even more intricate designs than are practical in glass may be made where the nature of the use will justify the expense of the unusual quality of fused-quartz used. This quality of quartz-glass is unnecessary and hence is not recommended for ordinary chemical apparatus.

Correspondence with reference to the design and construction of special fused-quartz apparatus for high grade photo-chemical and photo-physical work is invited.



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